



**UNITED
TECHNOLOGIES
CARRIER**

Carrier Corporation

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Syracuse, New York 13221
315/432-6000

November 11, 1992

Ms. Beth Brown
EPA Region 4
345 Courtland Street, N.E.
Atlanta, GA 30365

RE: CARRIER OVERSIGHT COSTS

Dear Ms. Brown:

Enclosed is a memo from our consultants, Ensafe, concerning the use of both the Summers and Multimed models.

Prior to our use of either model, EPA made it quite clear that Carrier use these models or EPA would conduct the baseline risk assessment. It was also strongly implied that the use of these models would minimize regulatory issues between the parties. Carrier used the recommended models to move the process forward and to achieve cleanup as soon as possible.

We still believe the oversight cost for the Summers model are not warranted. If you have any questions, please call me at (315) 432-6028.

Sincerely,

Nelson Wong
Environmental Manager

Enclosure

cc Pete Raack, EPA
Lenny Zaprowski, EPA



MEMORANDUM

TO: Nelson Wong, Carrier Corporation

FROM: Phil Coop & Mark Bowers, EnSafe

SUBJECT: Risk Assessment Modeling Decisions

DATE: November 12, 1992

You have asked that EnSafe review its files with regard to the decision to use the "Summers Model" on the Carrier-Collierville RI/FS' Baseline Risk Assessment (BRA). As you know the Summers Model was an attempt to measure risk to groundwater arising from soil contamination.

EnSafe used the Summers Model in the first draft of the BRA in response to a meeting held at EPA in 1991 at which representatives from EPA provided a copy of the BRA for the Arlington Blending and Packaging Site. The copy was provided with the comment that this BRA had been done in house and was therefore presumably a good "example". We implemented the Summers Model as best we could although we found it cumbersome on the Collierville Site. [Use of this model was also discussed briefly at the end of a meeting at EPA regarding a different site.]

EPA's review of this model in the BRA resulted in a strong difference of opinion on how to make the model fit...resulting in dramatic differences in soil clean up levels (0.7 ppb versus 170 ppb).

In subsequent discussions on the issue, EPA provided Carrier/EnSafe with a copy of a different model called MultiMed, presented as a model preferable to the Summers Model. After finding and repairing some coding errors we were able to implement it in a fashion which was mutually acceptable.

In summary, we chose the Summers Model on the assumption that it was preferred by EPA.